We Claim:

1. A method for forming a tissue equivalent, comprising:

providing a suspension of dissociated cells in a solution of a biocompatible polymer, wherein the polymer crosslinks upon exposure to free radicals to form a hydrogel,

exposing the suspension to free radicals generated by electromagnetic radiation from an electromagnetic source external to the suspension so that the electromagnetic radiation generates free radicals which cause polymer crosslinking and forms the tissue equivalent.

2. The method of Claim 1 wherein the electromagnetic radiation is selected from the group consisting of x-rays, ultrasound, infrared radiation, far infrared radiation, ultraviolet radiation, long-wavelength ultraviolet radiation, and visible light.

3. The method of Claim 1 wherein the suspension further comprises a photoinitiator.

4. The method of Claim 3 wherein the photoinitiator is selected from the group consisting of erythrosin, phloxime, rose bengal, thonine, camphorquinone, ethyl eosin, eosin, methylene blue, riboflavin, 2,2-dimethyl-2-phenylacetophenone, 2-methoxy-2-phenylacetophenone, 2,2-dimethoxy-2-phenylacetophenone, and other acetophenone derivatives.

5. The method of Claim 4 wherein the suspension further comprises a cocatalyst.

6. The method of Claim 5 wherein the cocatalyst is selected from the group consisting of N-methyl diethanolamine, N,N-dimethyl benzylamine, triethanolamine, triethylamine, dibenzylamine, N-benzylethanolamine, and N-isopropyl benzylamine.

7. The method of Claim 6 wherein the cocatalyst is triethanolamine.